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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/786,193	02/25/2004	Carlos G. Puente	7678.783	2403
22913	7590	09/20/2005	EXAMINER	
WORKMAN NYDEGGER (F/K/A WORKMAN NYDEGGER & SEELEY) 60 EAST SOUTH TEMPLE 1000 EAGLE GATE TOWER SALT LAKE CITY, UT 84111			ARTMAN, THOMAS R	
			ART UNIT	PAPER NUMBER
			2882	

DATE MAILED: 09/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/786,193

Applicant(s)

PUENTE ET AL.

Examiner

Thomas R. Artman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>10 June 2004</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Objections***

Claim 2 is objected to because of the following: it is a verbatim copy of a limitation that already exists in line 5 of parent claim 1. Claim 2 should be deleted or amended to further limit the parent claim. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 8 and 12-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Willis (US 5,799,058).

Regarding claims 1, 2, 17 and 20, Willis discloses a dental x-ray positioning device and method of use (Fig.3), including:

- a) a frame 10,
- b) a bite block 12,
- c) an aiming ring 64 connected to the frame, and
- d) an image receptor holder 14 connected to the frame,
- e) where the aiming ring (Fig.1) and the image receptor holder (Fig.5) are adjustable such that the center of an x-ray beam, directed through the aiming ring, is adjustable horizontally and

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vertically with respect to the center of an image receptor 16 that is retained by the holder 14 (see at least Abstract).

With respect to claim 3, Willis further discloses that the frame includes a first bar 34 to which the image receptor holder is connected.

With respect to claim 8, Willis further discloses that the frame has a second bar 36 and an arm 46 where the aiming ring is attached to the arm.

With respect to claim 12, Willis further discloses that the arm includes a curved portion 56 (Fig.4).

With respect to claim 13, Willis further discloses that the first bar has a plurality of rods (items 20 and 30).

With respect to claim 14, Willis further discloses that the second bar has a plurality of rods (item 41 and one below (not shown)).

With respect to claim 15, Willis further discloses that the image receptor holder is a U-shaped clip for holding an image receptor between the clips (Figs.3-5, formed by gripping members 20).

With respect to claim 16, Willis further discloses that the frame has first and second structural members (34 and 54, respectively) where the first structural member has markings 35 for measuring vertical adjustments of the image receptor holder.

With respect to claims 18 and 19, multiple images are taken at common or different positions as desired (see at least Abstract).

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Willis, as applied to claim 3 above, in view of Van Aken (US 4,707,847).

With respect to claim 4, Willis does not specifically disclose that the bite block is slidably adjustable along the first bar.

Van Aken specifically teaches the practice of a bite block 5 that is slidably adjustable along an arm 4 of a dental x-ray positioning frame (Fig.3). In this way, the bite block can be positioned at the side of the jaw part to be displayed, independent of the position of the image

receptor, particularly to image areas where teeth are missing or exist below the gum line (col.1, lines 48-54).

It would have been obvious to one of ordinary skill in the art at the time the invention was made for Willis to have the bite block slidably attached to the first arm in order to improve the flexibility and usefulness of the device. The slideable bite block allows the bite block to be positioned relative to the image receptor in order to image areas that are otherwise difficult, such as wisdom teeth that are below the gum surface, etc., as taught by Van Aken.

With respect to claim 5, Willis does not specifically disclose that the bite block can be interchangeable with different bite blocks.

Van Aken suggests such a practice, where each patient has a bite block having an indentation of their own tooth such that subsequent images can be taken accurately with simple alignment (col.3, lines 14-19).

It would have been obvious to one of ordinary skill in the art at the time the invention was made for Willis to have interchangeable bite blocks, each configured uniquely for each patient, in order to more reliably position the apparatus and patient for more accurate subsequent image taking as taught by Van Aken.

With respect to claim 6, Van Aken further discloses markings 30 on the first bar for measuring bite block adjustments (col.3, lines 20-23).

With respect to claim 7, Van Aken does not specifically disclose the use of indentations as markings to measure the position of the bite block along the arm. However, Willis does teach a similar practice with the slideable first arm with indentations 35 that reliably and precisely lock the slideable arm in position (col.2, lines 40-46).

It would have been obvious to one of ordinary skill in the art at the time the invention was made for the combination of Willis and Van Aken to have indentations as markings on the first arm in order to more precisely and reliably position the slideable bite block along the first arm.

Claims 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Willis, as applied to claim 8 above, in view of Kanbar (US 5,289,522).

With respect to claim 9, Willis does disclose the additional limitation of having the aiming ring slideably adjustable along the arm (Fig.9); however, the adjustability that is required by parent claim 1 is lost in the embodiment. Therefore, the combination of features of the aiming ring are not specifically disclosed.

Kanbar specifically teaches the necessity of having the aiming ring slideably engaged with the arm (Fig.6; col.2, lines 49-56; col.3, lines 10-16; col.5, lines 19-26), specifically to adjust the device for the focal length of the x-ray source used in order to improve the image on the image receptor.

It would have been obvious to one of ordinary skill in the art at the time the invention was made for Willis to have the aiming ring slideably adjustable along the arm in order to be

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able to adjust for the focal length of the x-ray source being used and thus improve the image quality as taught by Kanbar.

With respect to claim 10, Kanbar further teaches the practice of using markers for accurate measure of the position of the aiming ring (col.5, lines 27-32).

With respect to claim 11, Kanbar does not specifically disclose the use of indentations for markers. However, Willis does teach a similar practice with the slideable first arm with indentations 35 that reliably and precisely lock the slideable arm in position (col.2, lines 40-46).

It would have been obvious to one of ordinary skill in the art at the time the invention was made for the combination of Willis and Kanbar to have indentations as markings on the arm in order to more precisely and reliably position the aiming ring along the arm.

### *Conclusion*

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Klausser (US 5,044,009) and Fuhrmann (US 4,965,885) teach the practice of having slideable aiming rings along arms for accommodating focal lengths of various x-ray sources. Angotti (US 5,090,047) teaches the practice of having an adjustable bite block along the length of the arm. Chavarria (US 4,866,750) teaches an image receptor holder that is adjustable through pivoting around two axes. Maldonado (US 4,554,676) and Levy (US 5,327,477) teach adjustable image receptors and aiming rings; however, they only facilitate x-ray beam adjustment vertically with respect to the center of the image receptor. Yao (US 6,932,505) teaches a dental positioner



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with little or no adjustability of the x-ray beam perpendicular to the image receptor. Kilcher (US 6,905,244) teaches an image receptor holder with a means to vertically adjust the image receptor position.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas R. Artman whose telephone number is (571) 272-2485. The examiner can normally be reached on 9am - 5:30pm Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ed Glick can be reached on (571) 272-2490. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Thomas R. Artman  
Patent Examiner



Craig E. Church  
Primary Examiner